



MTG-3000 - data sheet



The watch timing machine TYMC multifunction timegrapher MTG-3000 is a semi-professional model, offering various functions to analyse a mechanical watch movement.

This model features a big, high resolution backlit LCD screen with 4 different display modes. It measures beat rate, beat error, beat number and amplitude.

It stores 2048 beats and offers a „SHIFT“ function to pause measuring and inspect the previous 2048 beats.

Furthermore this model comes with a programmed test mode:

The watch can be tested for a defined time in up to 6 positions (positions for measuring can be selected). After completion of the test program, the test results are displayed as a test report including beat rate, beat error and amplitude in the single positions and also the maximum difference of the beat rate and amplitude between the 6 positions.

With the optionally available printer (THERMOPRINT) the graphic and numeric results of all measurements and the result of the programmed test can be printed.

Functions:

- measuring of beat rate [s/d]
- measuring of beat error [ms]
- automatic beat number detection (can also be set manually)
- measurable beat numbers: 18.000, 19.800, 21.600, 25.200, 28.800 and 36.000 a/h
- acoustic watch beat simulation (can be switched off)
- measuring of amplitude [°]
- programmed 6-position test mode with test report
- stores 2048 beats
- „PAUSE“ and „SHIFT“ function to stop measuring and view the previous 2048 beats
- thermoprinter connection (THERMOPRINT available optionally)
- connection for automatic microphone (AUTOMIC-1 available optionally)





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Technical specifications:

Measuring facilities:

beat rate, beat error, beat number, amplitude

Signal gain control:

the basic gain of the input signal is adjusted automatically
The level can also be adjusted manually for movements with very weak or strong signals or movements with side noises

Beat numbers:

18.000, 19.800, 21.600, 25.200, 28.800 and 36.000 a/h
automatic detection or manual setting

Beat rate:

numeric display in s/d and diagram
range: +/- 300 s/d
resolution: 1 s/d
accuracy: +/- 1s/d

Beat error:

numeric display in s/d and diagram
range: 0.0 ms – 4.0 ms
resolution: 0.1 ms
accuracy: +/- 0.1 ms

Amplitude:

numeric display in degrees °
range: 90° - 350°
resolution: 1°
accuracy: +/- 3°

lift angle adjustable from 30° to 60° / resolution: 0.1°

6 position programmed test mode:

selectable positions: 1-6
measuring time per position: 10-50 s
displayed test results:
beat rate, beat error, amplitude of each single position,
maximum difference of beat rate and amplitude within the tested positions

Display:

backlit 5,6" LC display
resolution: 320 dots x 240 dots

Diagram display:

horizontal pushing / horizontal extending / vertikal pushing /
vertikal extending

Displayable diagram length:

320 dots horizontal / 240 dots vertikal

„PAUSE“ and „SHIFT“ function to stop the measuring and view the previous 2048 stored beats.

Time base:

XO
stability: +/- 0,3 s/d

Case:

dimensions: 240 x 160 x 100 mm
weight: ca. 0,8 kg (without power supply and microphone)

Power supply:

external power supply
90V – 240V AC 50-60Hz

Connectivities:

Thermal direct printer THERMOPRINT (available optionally):
Printing of graphic or numeric results of the measuring
Printing the test result of the programmed test mode

Automatic microphone AUTOMIC-1 (available optionally):
stepper motor driven automatic microphone

EAN article number:

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Included in delivery:

TYMC multifunction timegrapher MTG-3000, external power supply, 6-position microphone ROTOMIC-1, manual, dust cover

